

Date: Monday, 22/09/2008 1:03:26 PM  
 User: Julie Lecocq

## Process Sheet

<b>Customer</b> : CU-DAR001 Dart Helicopters Services	<b>Drawing Name</b> : TUBE ASSEMBLY
<b>Job Number</b> : 42172	
<b>Estimate Number</b> : 10429	
<b>P.O. Number</b> :	<b>Part Number</b> : D3304043
<b>This Issue</b> : 22/09/2008 <b>S.O. No.</b> :	<b>Drawing Number</b> : D3304 REV. B
<b>Prsht Rev.</b> : NC	<b>Project Number</b> : N/A
<b>First Issue</b> : / / <b>Type</b> : MACHINED PARTS	<b>Drawing Revision</b> : B
<b>Previous Run</b> : 40861	<b>Material</b> :
<b>Written By</b> :	<b>Due Date</b> : 29/09/2008 <b>Qty:</b> 10 <b>Um:</b> Each
<b>Checked &amp; Approved By</b> : <u>JLP 08.9.22</u>	
<b>Comment</b> : Est: D 04.11.26 Revised Step 7 KJ/JLM	

## Additional Product

Job Number:



<b>Seq. #:</b>	<b>Machine Or Operation:</b>	<b>Description :</b>
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1.0	M304TR0875W065	304 round tube .875 x .065w
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(10)

**Comment:** Qty.: 1.9469 f(s)/Unit Total : 19.4691 f(s)  
 Material: AISI 304/316 SS tubing 0.875" x 0.065" wall  
 (M304TR0.875W.065) Batch: M109734 MMF 08/10/31

2.0	BAND SAW	BAND SAW
-----	----------	----------



(10)

**Comment:** BAND SAW  
 1- Cut blank: 22.00" as per Dwg D3304

MMF 08/10/31

3.0	LATHE CONV.	CONVENTIONAL LATHE
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(10)

**Comment:** CONVENTIONAL LATHE  
 1- Cut blank: 22.00" as per Dwg D3304  
 2- Turn as per Dwg D3304  
 3- Deburr

MMF 08/10/31

4.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
-----	-----	----------------------------------------



(10)

MMF 08/10/31**Comment:** INSPECT PARTS AS THEY COME OFF MACHINE

5.0	QC8	SECOND CHECK
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08.10.03 (10)

**Comment:** SECOND CHECK

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

Date: Monday, 22/09/2008 1:03:26 PM  
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## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: TUBE ASSEMBLY

Job Number: 42172

Part Number: D3304043

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

1- Form as per Dwg D3304

Ensure that bend radius does not fall into straight section using DT8756.

2- Drill as per Dwg D3304 using drill Jig D3304-T1

3- Cut tube to length as per Dwg D3304

4- Deburr

FF 09-01-08

(10)

7.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

S 09/01/08 (X10)

8.0

D33047

Bracket



Comment: Qty.: 1.0000 Each(s)/Unit Total: 10.0000 Each(s)

Bracket

Pick:

Qty Part Number Description Batch  
1 D3304-7 Bracket

B42231

Sp 09.01.12

9.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

Weld bracket as per Dwg D3304 and QSI 004 using DT8775

Sp 09.01.12

(10)

10.0

QC9

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

Sp 09.01.13

(X10)

11.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

S 09/01/13 (X10)

12.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat Grey Sandtex (Ref: 4.3.5.6) as per QSI 005 4.3

START TIME:

8:40

OVEN TEMPERATURE:

320°

FINISH TIME:

9:10

FL 09/01/14

(10)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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Drawing Name: TUBE ASSEMBLY

Job Number: 42172

Part Number: D3304043

Job Number:



Seq. #:

Machine Or Operation:

Description :

13.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



11



Comment: INSPECT POWDER COAT

09-01-14

(x10)

14.0

BLBS0016

PIP PIN



Comment: Qty.: 1.0000 Each(s)/Unit Total: 10.0000 Each(s)

PIP PIN

Pick:

Qty	Part Number	Description	Batch
1	BLBS-0016	Pip Pin	M110573

FF 09/01/22

(10)

15.0

CBL460

Loop Sleeve



Comment: Qty.: 2.0000 Each(s)/Unit Total: 20.0000 Each(s)

Loop Sleeve

Pick:

Qty	Part Number	Description	Batch
2	CBL-460	Loop Sleeve	M109062

FF 09/01/22

(10)

16.0

CBL1240

Cable



Comment: Qty.: 1.0416 f(s)/Unit Total: 10.4160 f(s)

Cable

Pick:

Qty	Part Number	Description	Batch
12.5"	CBL-1240	Cable	M103927

FF 09/01/22

(10)

17.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

Assemble lanyard and pip pin as per Dwg D3304

Identify as D3304-043

FF 09/01/22

(10)

18.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

S 09/01/22 (x10)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

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Drawing Name: TUBE ASSEMBLY

Job Number: 42172

Part Number: D3304043

Job Number:



Seq. #:

Machine Or Operation:

Description :

19.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify with P/N and B/N as per Dwg using a permanent fine point marker, then Stock

Location: ST 188

*JS* 09/01/23 *ST 188*

20.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

09/01/23 *JS*

Job Completion



*U a.d.23*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_



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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

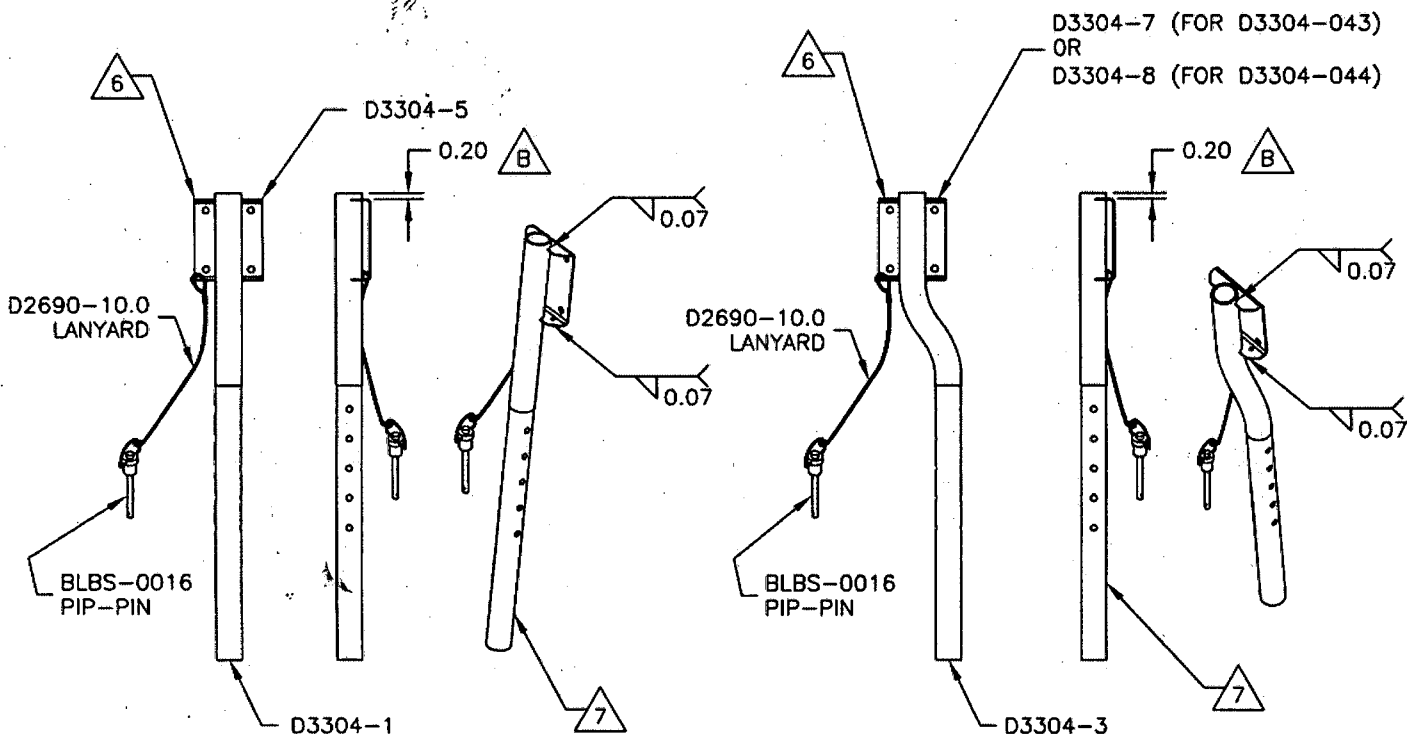
**NOTE:** Date & initial all entries





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RF	RF			
CHECKED	APPROVED	DRAWING NO.	REV. B	
		D3304	SHEET 1 OF 4	
DATE	TITLE		SCALE	
05.07.15	TUBE ASSEMBLY		1:6	
A	04.08.18	NEW ISSUE		
B	05.07.15	UPDATE DIMENSIONS; ADD D3304-7/-8		



**D3304-041 TUBE ASSEMBLY**

**D3304-044 TUBE ASSEMBLY (SHOWN)**  
**D3304-043 OPPOSITE**

D3304--041/-043/-044 NOTES:

- 1) FINISH: POWDER COAT GREY SANDEX (REF. 4.3.5.6) PER DART QSI 005 4.3  
2) WELD PER DART QSI 004  
3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED  
4) ALL DIMENSIONS ARE IN INCHES  
5) BREAK ALL SHARP EDGES 0.005 TO 0.015  
6) IDENTIFY AS INDICATED USING FINE POINT PERMANENT INK MARKER "TCCA-PDA, DART  
AEROSPACE LTD, P/N D3304-XXX B/N BXXXXX, FOR PRODUCT ELIGIBILITY SEE PDA04-11"  
7) IF BEING ASSEMBLED WITH D3303-041, ADD THE FOLLOWING USING A FINE POINT  
PERMANENT INK MARKER: "TCCA-PDA, DART AEROSPACE LTD, P/N D412-724-XXX B/N  
BXXXXX, FOR PRODUCT ELIGIBILITY SEE PDA04-11"

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95-08-11

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NO

~~WORK ORDER~~

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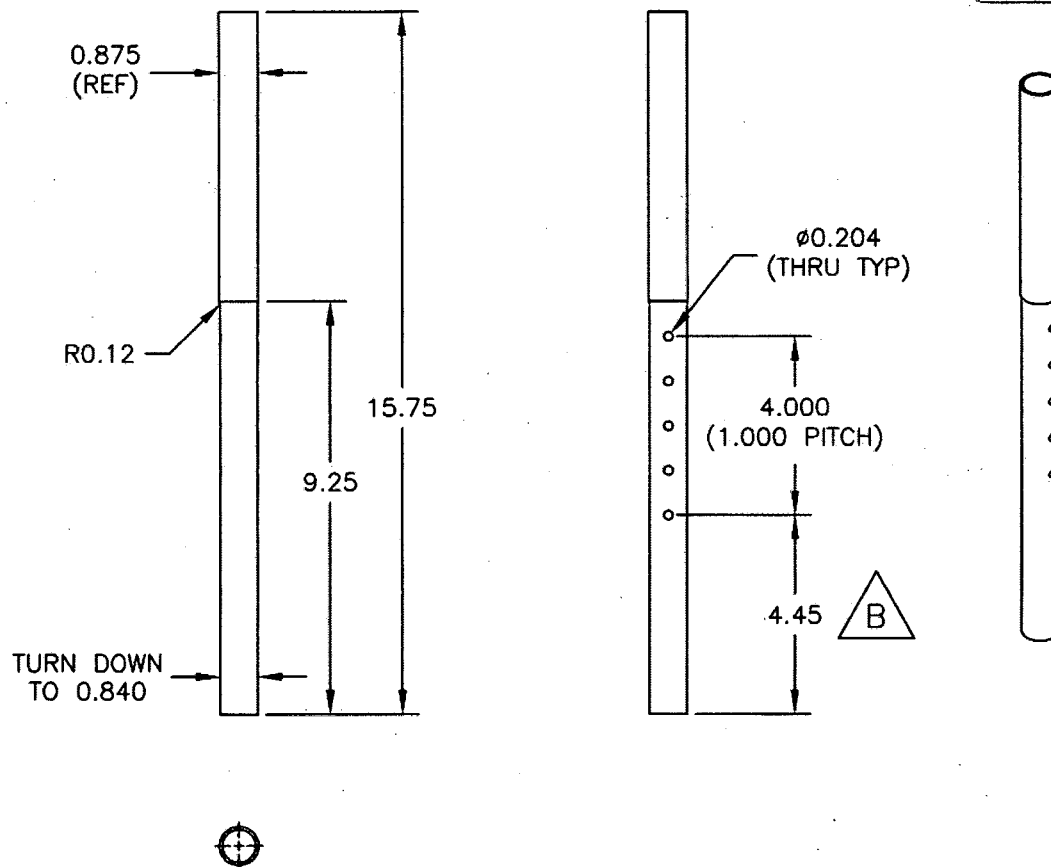
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# ENGINEERING

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DATE 05.07.15	TITLE TUBE ASSEMBLY		SCALE 1:4

**RELEASED**  
05.08.11 *[Signature]***D3304-1 TUBE****D3304-1 NOTES:**

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL TUBE  $\phi 0.875 \times 0.065$  WALL (REF. DART SPEC M304TR0.875W.065) ENSURE SEAMLESS TUBE IS USED
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015

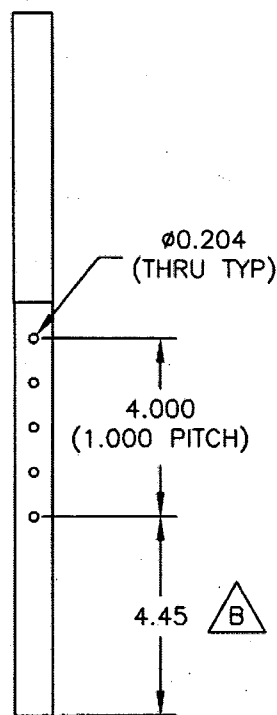
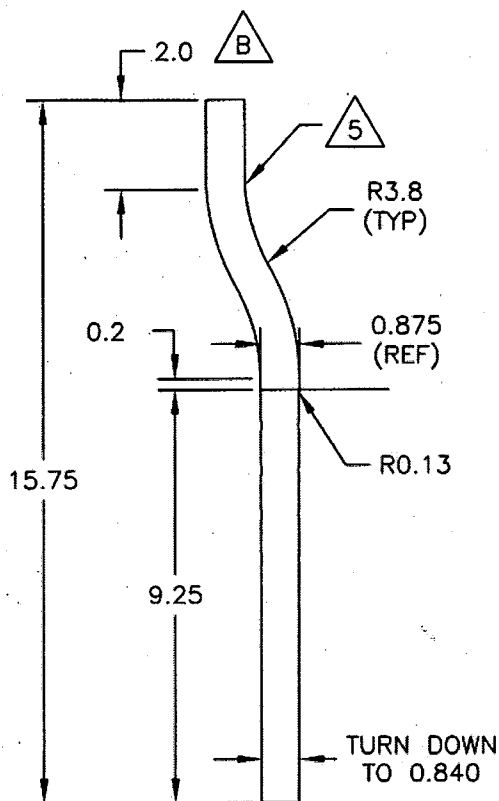
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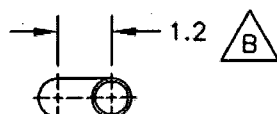
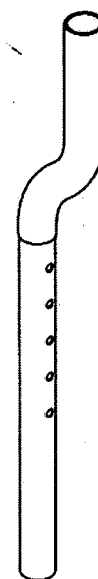
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DATE 05.07.15	TITLE TUBE ASSEMBLY		SCALE 1:4



RELEASED  
05-08-11 *[Signature]*



### D3304-3 TUBE

#### D3304-3 NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL TUBE  $\phi 0.875 \times 0.065$  WALL (REF. DART SPEC M304TR0.875W.065) ENSURE SEAMLESS TUBE IS USED
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 5) BEND LINES 9.625, 13.375 DIMENSIONS

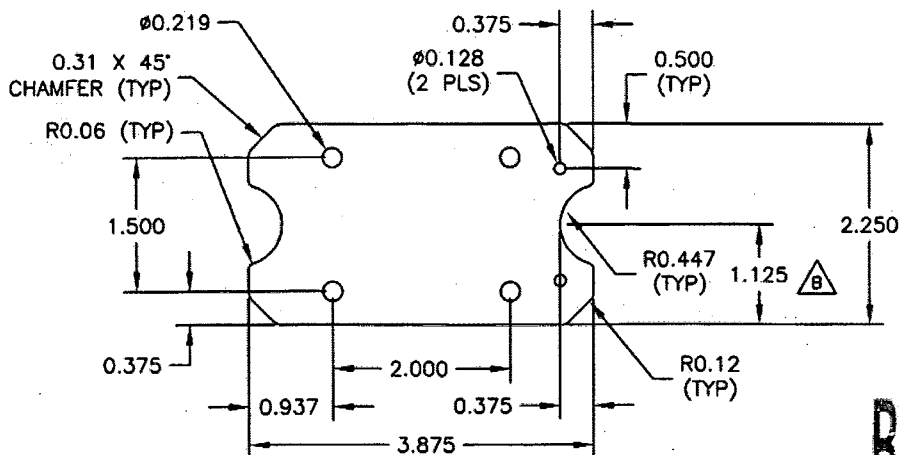
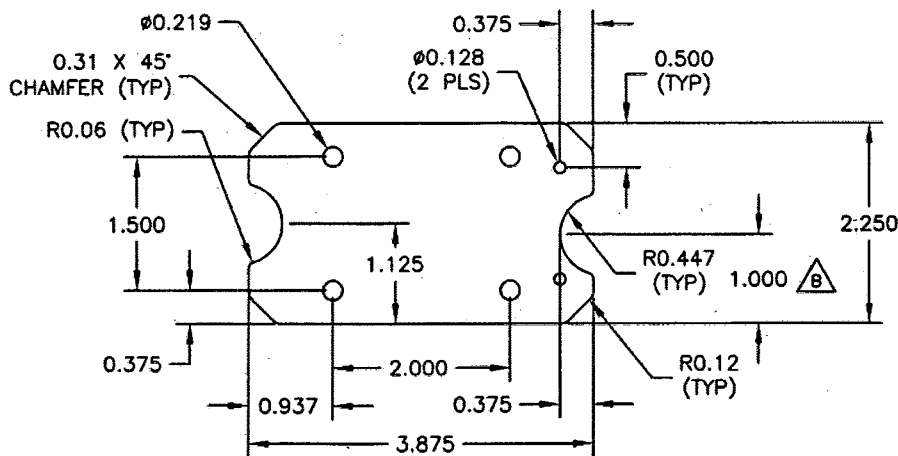
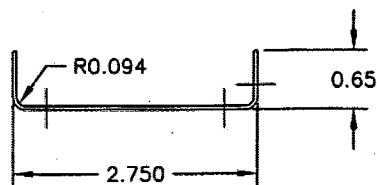
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DATE 05.07.15	TITLE TUBE ASSEMBLY		SCALE 1:2

**D3304-5 FLAT PATTERN****RELEASED**  
05.08.11**D3304-7/-8 FLAT PATTERN****D3304-5/-7 BRACKET  
D3304-8 OPPOSITE**

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**NOTES:**

- 1) MATERIAL: AISI 304/316 SS 0.040 THICK SHEET (REF. DART SPEC M304S20GA)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015

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